

## **REMARKS**

Applicant respectfully requests reconsideration of this application in view of the filing of the enclosed RCE and the foregoing amendments and remarks. With entry of this response, claims 1, 7-9, 18 and 22 are amended; and claims 20-21 and 26 are canceled. Support for these amendments is found throughout the originally-filed claims and specification, for example, on pages 14-17 and 28-29. Thus, claims 1, 2, 7-9, 18, 19, and 22-25, and 27 remain pending.

### **I. Rejections under 35 USC §112, second paragraph**

The Examiner rejected claims 1, 2, 7-9, and 18-23 as allegedly being indefinite. Applicants have amended the claims to clarify the language recited in the claims. The term “structural DNA” has been changed to “nucleic acid of interest,” as suggested previously by the Examiner. Applicants canceled claim 20, as the terms “screenable” and “selectable” were being used interchangeably (rendering claim 20 redundant to other pending claims). Finally, the use of filter paper in claims 24-27 has been clarified. In view of these amendments, Applicants respectfully request that the rejections be withdrawn.

### **II. Rejections under 35 USC §102**

The Examiner rejected claims 1, 2, 7-9, and 18-27 under 35 U.S.C. §103(a) as allegedly being unpatentable over Chee in view of Hua, further in view of the Second Law of Thermodynamics (Clausius and Thomson). According to the Examiner, Chee describes the transformation of soybean cotyledons using *Agrobacterium*. In particular, the Examiner notes that Chee incubates cotyledons and *Agrobacterium* for four days on moistened towels (after injecting ~90 µl of *Agrobacterium* solution into the tissue), during which time moisture from the co-culture may be reduced via evaporation according to the Second Law of Thermodynamics. Chee does not teach the use of any other soybean explants. The Examiner, however, relies on Hua’s report of *Agrobacterium*-mediated transformation of soybean hypocotyls to account for this deficiency in Chee. Thus, the Examiner contends it would be obvious to combine these teachings and derive the presently claimed invention. Applicants respectfully traverse.

For a combination of prior art references to render a claimed invention obvious, there must be some motivation or suggestion in the prior art to modify the teachings in the manner proposed by the Examiner. M.P.E.P. 2141.03. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). In this case, there is no motivation to combine or modify the references as proposed by the Examiner to derive the presently amended claims.

Chee describes a method whereby a defined amount of liquid (90 $\mu$ l) is injected into a cotyledon tissue (30 $\mu$ l at 3 different sites of injection). This tissue is then placed on a moistened towel for four days. Throughout Chee's process, the original *Agrobacterium* culture is left in contact with the tissue. There is no mechanism by which Chee can substantially remove the *Agrobacterium* solution that has been injected into the tissue itself. Applicants invention also provides for an inoculation step during which a hypocotyl or other tissue is contacted with a solution of *Agrobacterium*. But in contrast to Chee, the *Agrobacterium* solution in Applicants' claimed method is substantially removed from the tissue after the inoculation. Once the *Agrobacterium* solution has been removed, a small amount (e.g., about 100 to about 300  $\mu$ l) of fresh media or water is then provided for the co-culture period.

Given these teachings of Chee, one of skill in the art would have no motivation to modify Chee to remove the *Agrobacterium* solution prior to co-culture. Such a process is not taught or suggested by Chee. In fact, Applicants submit that such a removal (i.e., withdrawing injected *Agrobacterium* solution from sites of injection) would be totally impracticable. The other references cited by the Examiner do not account for this deficiency in Chee. Nothing in Hua teaches or suggests that an *Agrobacterium* solution should be removed from Chee's injection sites prior to co-culture, and that a small amount of fresh media should be applied during the subsequent co-culture step.

For these reasons, and those already made of record, Applicants respectfully traverse the obviousness rejection and request that the rejection be withdrawn.

**Conclusion**

In view of the above, each of the presently pending claims is believed to be in immediate condition for allowance. Applicant invites the Examiner to call the undersigned for clarification on any aspect of this response or if the Examiner believes that a telephone interview would expedite the prosecution of the subject application to allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'M. Todd Rands', written in a cursive style.

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